

Carsten Busse

List of Publications by Year in descending order

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79
papers

6,158
citations

109321

35
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66911

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81
all docs

81
docs citations

81
times ranked

5951
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial variation of geometry, binding, and electronic properties in the moiré superstructure of MoS ₂ on Au(111). 2D Materials, 2022, 9, 025003.	4.4	15
2	Metal-insulator transition in monolayer MoS ₂ via contactless chemical doping. 2D Materials, 2022, 9, 025026.	4.4	8
3	Two Phases of Monolayer Tantalum Sulfide on Au(111). ACS Nano, 2021, 15, 13516-13525.	14.6	10
4	Sub-Poissonian distribution of Cs and K ions in the valleys of hBN/Ru(0001). Physical Review B, 2021, 104, .	3.2	2
5	Electronic Structure of Quasi-Freestanding WS ₂ /MoS ₂ Heterostructures. ACS Applied Materials & Interfaces, 2021, 13, 50552-50563.	8.0	14
6	Structure of monolayer TaS ₂ on Au(111). Physical Review B, 2021, 104, .	3.2	6
7	Sulfur Structures on Bare and Graphene-Covered Ir(111). Journal of Physical Chemistry C, 2020, 124, 6659-6668.	3.1	7
8	Lifting Epitaxial Graphene by Intercalation of Alkali Metals. Journal of Physical Chemistry C, 2019, 123, 13712-13719.	3.1	11
9	Tomonaga-Luttinger Liquid in a Box: Electrons Confined within MoS ₂ Mirror-Twin Boundaries. Physical Review X, 2019, 9, .	8.9	32
10	Charge density wave phase of VSe ₂ . Physical Review B, 2019, 99, .	3.2	11
11	Comprehensive tunneling spectroscopy of quasifreestanding MoS ₂ on graphene on Ir(111). Physical Review B, 2019, 99, .	3.2	11
12	Suppression of Quasiparticle Scattering Signals in Bilayer Graphene Due to Layer Polarization and Destructive Interference. Physical Review Letters, 2018, 120, 106801.	7.8	9
13	Molecular beam epitaxy of quasi-freestanding transition metal disulphide monolayers on van der Waals substrates: a growth study. 2D Materials, 2018, 5, 025005.	4.4	55
14	Modifying the geometric and electronic structure of hexagonal boron nitride on Ir(111) by Cs adsorption and intercalation. Physical Review B, 2018, 98, .	3.2	11
15	Resonance Raman Spectrum of Doped Epitaxial Graphene at the Lifshitz Transition. Nano Letters, 2018, 18, 6045-6056.	9.1	16
16	Valleys and Hills of Graphene on Ru(0001). Journal of Physical Chemistry C, 2018, 122, 18554-18561.	3.1	18
17	Energy-Dependent Chirality Effects in Quasifree-Standing Graphene. Physical Review Letters, 2017, 118, 116401.	7.8	17
18	Moiré-regulated self-assembly of cesium adatoms on epitaxial graphene. Physical Review B, 2017, 96, .	3.2	12

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19	Step-induced faceting and related electronic effects for graphene on Ir(332). Carbon, 2016, 110, 267-277.	10.3	17
20	Atomic structure of Pt nanoclusters supported by graphene/Ir(111) and reversible transformation under CO exposure. Physical Review B, 2016, 93, .	3.2	23
21	Structure and Growth of Hexagonal Boron Nitride on Ir(111). ACS Nano, 2016, 10, 11012-11026.	14.6	93
22	Oxygen orders differently under graphene: new superstructures on Ir(111). Nanoscale, 2016, 8, 1932-1943.	5.6	25
23	H ₂ O on Graphene/Ir(111): A Periodic Array of Frozen Droplets. Journal of Physical Chemistry C, 2015, 119, 1418-1423.	3.1	15
24	Comment on "Interfacial Carbon Nanoplatelet Formation by Ion Irradiation of Graphene on Iridium(111)". ACS Nano, 2015, 9, 4664-4665.	14.6	10
25	Graphene on weakly interacting metals: Dirac states versus surface states. Physical Review B, 2015, 91, .	3.2	19
26	Interfacial Carbon Nanoplatelet Formation by Ion Irradiation of Graphene on Iridium(111). ACS Nano, 2014, 8, 12208-12218.	14.6	29
27	Graphene buckles under stress: An x-ray standing wave and scanning tunneling microscopy study. Physical Review B, 2014, 89, .	3.2	22
28	Confinement of Dirac electrons in graphene quantum dots. Physical Review B, 2014, 89, .	3.2	36
29	Spin-Polarized Surface State in EuO(100). Physical Review Letters, 2014, 112, 016803.	7.8	14
30	The Backside of Graphene: Manipulating Adsorption by Intercalation. Nano Letters, 2013, 13, 5013-5019.	9.1	74
31	The mechanism of caesium intercalation of graphene. Nature Communications, 2013, 4, 2772.	12.8	184
32	Mapping Image Potential States on Graphene Quantum Dots. Physical Review Letters, 2013, 111, 056804.	7.8	50
33	Absence of Edge States in Covalently Bonded Zigzag Edges of Graphene on Ir(111). Advanced Materials, 2013, 25, 1967-1972.	21.0	42
34	Atomic Structure and Crystalline Order of Graphene-Supported Ir Nanoparticle Lattices. Physical Review Letters, 2013, 110, 065503.	7.8	47
35	Ion Impacts on Graphene/Ir(111): Interface Channeling, Vacancy Funnels, and a Nanomesh. Nano Letters, 2013, 13, 1948-1955.	9.1	81
36	Structure and magnetic properties of ultra thin textured EuO films on graphene. Applied Physics Letters, 2013, 103, 131601.	3.3	22

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37	Oxygen Intercalation under Graphene on Ir(111): Energetics, Kinetics, and the Role of Graphene Edges. ACS Nano, 2012, 6, 9951-9963.	14.6	173
38	Interplay of Wrinkles, Strain, and Lattice Parameter in Graphene on Iridium. Nano Letters, 2012, 12, 678-682.	9.1	131
39	Mechanical exfoliation of epitaxial graphene on Ir(111) enabled by Br ₂ intercalation. Journal of Physics Condensed Matter, 2012, 24, 314208.	1.8	11
40	Wave-Function Mapping of Graphene Quantum Dots with Soft Confinement. Physical Review Letters, 2012, 108, 046801.	7.8	110
41	H ₂ O on Pt(111): structure and stability of the first wetting layer. Journal of Physics Condensed Matter, 2012, 24, 124103.	1.8	12
42	Graphene on Ir(111): Physisorption with Chemical Modulation. Physical Review Letters, 2011, 107, 036101.	7.8	270
43	Graphene on Ir(111) characterized by angle-resolved photoemission. Physical Review B, 2011, 84, .	3.2	97
44	Sheet plasmons in modulated graphene on Ir(111). New Journal of Physics, 2011, 13, 053006.	2.9	66
45	Growth temperature dependent graphene alignment on Ir(111). Applied Physics Letters, 2011, 98, .	3.3	95
46	Epitaxial europium oxide on Ni(100) with single-crystal quality. Physical Review B, 2011, 83, .	3.2	24
47	Steering Organizational and Conformational Surface Chirality by Controlling Molecular Chemical Functionality. ACS Nano, 2010, 4, 297-311.	14.6	63
48	Molecular structure of the H ₂ O on Pt(111). Physical Review B, 2010, 82, .	3.1	64
49	Growth of graphene on Ir(111). New Journal of Physics, 2009, 11, 039801.	2.9	309
50	<i>In situ</i> observation of stress relaxation in epitaxial graphene. New Journal of Physics, 2009, 11, 113056.	2.9	107
51	A versatile fabrication method for cluster superlattices. New Journal of Physics, 2009, 11, 103045.	2.9	164
52	Dirac Cones and Minigaps for Graphene on Ir(111). Physical Review Letters, 2009, 102, 056808.	7.8	516
53	Growth of graphene on Ir(111). New Journal of Physics, 2009, 11, 023006.	2.9	249
54	Desorption of H ₂ O from Flat and Stepped Pt(111). Journal of Physical Chemistry C, 2009, 113, 691-697.	3.1	35

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55	Selecting a single orientation for millimeter sized graphene sheets. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	101
56	Surface Synthesis of 2D Branched Polymer Nanostructures. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 4406-4410.	13.8	170
57	Structure of epitaxial graphene on Ir(111). <i>New Journal of Physics</i> , 2008, 10, 043033.	2.9	397
58	Structural Coherency of Graphene on Ir(111). <i>Nano Letters</i> , 2008, 8, 565-570.	9.1	904
59	Molecular Self-Assembly from Building Blocks Synthesized on a Surface in Ultrahigh Vacuum: Kinetic Control and Topo-Chemical Reactions. <i>ACS Nano</i> , 2008, 2, 651-660.	14.6	82
60	Formation of Trioctylamine from Octylamine On Au(111). <i>Journal of the American Chemical Society</i> , 2008, 130, 5388-5389.	13.7	30
61	A defect-free thin film pentacene diode: Interplay between transport and scanning tunneling microscope tip tunneling injection. <i>Journal of Applied Physics</i> , 2007, 102, 033708.	2.5	13
62	Influence of Molecular Geometry on the Adsorption Orientation for Oligophenylene-Ethynyls on Au(111). <i>Journal of Physical Chemistry B</i> , 2007, 111, 11342-11345.	2.6	6
63	Molecules Coining Patterns into a Metal: The Hard Core of Soft Matter. <i>Chemistry of Materials</i> , 2007, 19, 4228-4233.	6.7	14
64	Chiral Ordering and Conformational Dynamics for a Class of Oligo-phenylene-ethynyls on Au(111). <i>Journal of Physical Chemistry B</i> , 2007, 111, 5850-5860.	2.6	31
65	Covalent Interlinking of an Aldehyde and an Amine on a Au(111) Surface in Ultrahigh Vacuum. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 9227-9230.	13.8	191
66	Electrochemically deposited Pd islands on an organic surface: the presence of Coulomb blockade in STM I(V) curves at room temperature. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 3375-3378.	2.8	40
67	Chiral switching by spontaneous conformational change in adsorbed organic molecules. <i>Nature Materials</i> , 2006, 5, 112-117.	27.5	213
68	Oscillatory interaction between O impurities and Al adatoms on Al(111) and its effect on nucleation and growth. <i>Surface Science</i> , 2005, 575, 89-102.	1.9	9
69	Dependence of stacking-fault nucleation on cluster mobility. <i>Physical Review B</i> , 2005, 71, .	3.2	15
70	Island shapes, island densities, and stacking-fault formation on Ir(111): Kinetic Monte Carlo simulations and experiments. <i>Physical Review B</i> , 2005, 71, .	3.2	25
71	Self-healing of stacking faults in homoepitaxial growth on Ir(111). <i>Surface Science</i> , 2004, 552, 281-293.	1.9	20
72	Dimer binding energies on fcc() metal surfaces. <i>Surface Science</i> , 2003, 539, L560-L566.	1.9	28

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73	From erosion to bombardment-induced growth on Ir(111). Physical Review B, 2003, 68, .	3.2	11
74	Stacking-Fault Nucleation on Ir(111). Physical Review Letters, 2003, 91, 056103.	7.8	45
75	Relevance of nonlocal adatom-adatom interactions in homoepitaxial growth. Physical Review B, 2003, 67, .	3.2	10
76	Tunneling voltage dependent heights of faulted and unfaulted Ir islands on Ir(111). Physical Review B, 2003, 68, .	3.2	9
77	Adatom formation and atomic layer growth on Al(111) by ion bombardment: experiments and molecular dynamics simulations. Surface Science, 2001, 488, 346-366.	1.9	30
78	Comment on "Dynamics of Surface Migration in the Weak Corrugation Regime". Physical Review Letters, 2001, 86, 2695-2695.	7.8	13
79	Atomic Layer Growth on Al(111) by Ion Bombardment. Physical Review Letters, 2000, 85, 326-329.	7.8	35